3/26/81

OPERATING LOG
ON
HAZARDOUS WASTES

Date Of Final	Where	How Mat'l	When Mat'l

ADMIN. 1000A
3

STATE OF M...NESOTA

DEPARTMENT MPCA - Region I - Duluth

Office Memorandum

TO : Lisa Thorvig
Regulatory Compliance
Division of Solid and Hazardous Waste

DATE: Dec. 10, 1981

FROM : Lyle R. Hobbs LRH
Regional Specialist

SUBJECT: Irathane Systems, Inc. Work Plan for Disposal of Hazardous and Nonhazardous Wastes.

Enclosed is a copy of the "Disposal of Waste, Materials, Hazardous and Nonhazardous at Irathane Systems, Incorporated, Hibbing, Minnesota".

I would appreciate your comments on the subject matter and if you have any questions, please contact me at your convenience.

LRH:hp
Enclosure

D I S P O S A L O F W A S T E

--M A T E R I A L S--

H A Z A R D O U S / N O N H A Z A R D O U S

A T

I R A T H A N E S Y S T E M S I N C O R P O R A T E D

Laurie Potter

Environmental Consultant

1981

Irathane is currently in compliance with both state and federal regulations concerning the disposal of hazardous/nonhazardous wastes. Due to the volume and type of wastes handled at I.S.I., special procedures have been set up with the state, county, and private environmental services to dispose properly of these wastes. Each department at Irathane must comply with these procedures as applicable.

In order to determine how a particular waste can or should be handled, the following questions must be asked and answered:

1. Is the waste hazardous?
   a. If no, is it solid or liquid?
      i. If the waste is solid, it can be removed to the Hibbing Sanitary Landfill.
      ii. If the waste is a liquid, it must be stored until the City of Hibbing, provides a disposal procedure.
   b. If yes, the waste is hazardous, is it a prepolymer/curative?
      i. If yes, the waste can be neutralized with available components and taken to the landfill.
      ii. If no, the waste must be stored until 1000kg of hazardous wastes are accumulated. At that time, 90 days are allowed for removal of the wastes.

2. What disposal options are available for a hazardous waste?
   a. If the waste is of the consistency of a "paste" or thinner, it can be incinerated, providing the chlorine concentration is less than 5%.
   b. If the waste is relatively "clean" it can be recycled and either returned to Irathane or sold to the reclaimer.
   c. If no other disposal options are available for the particular waste as described above, it is possible that the waste may be landfilled. However, landfilling is currently the most expensive of Irathane's disposal options and landfill restrictions are currently being tightened.

Once it is determined whether a material is hazardous or nonhazardous the material can be disposed of properly. Because of the large volume and large container size of Irathane's nonhazardous wastes, the following procedures have been set up with the state and county: Small quantities of nonhazardous waste can be taken directly to the landfill via the City of Hibbing. However, large quantities --drums, items too large for the dumpster-- must be removed by Irathane with full knowledge by MPCA. Drums going to the landfill must be deheaded and punctured on the sides and remaining head. Two days prior to the removal of nonhazardous solid drums by Irathane, MPCA must be contacted to oversee the disposal of those wastes. (Only solid nonhazardous wastes can be taken to the landfill.) Nonhazardous liquids may be taken to the landfill, but only in small quantities (less than one gallon).

Procedures for the disposal of hazardous wastes have also been set up with the state and private organizations. Due to the variety of these wastes that are generated, the proper logging, marking , and disposal of these materials will be discussed by department as follows:

3. Dept.503: An operational log must be maintained by Dept 503 and used by all dept's generating hazardous waste.

3.1. Raw Materials: Raw materials that are scrapped out by the lab, should be recorded in the operational log by name and marked on the drum if the material is in other than the original container. The following are the general categories of raw materials and their proper disposal procedures:

3.1.1. Solid Resins: Solid resins are nonhazardous; once they have been recorded in the 503 operational log and deheaded they can be removed with other bulk nonhazardous wastes, after contacting MPCA.

3.1.2. Liquid: Resins Liquid resins are also nonhazardous but due to their physical state, cannot be locally landfilled. The drums should be properly marked, recorded and stored pending the City of Hibbing's disposal procedure. (They can be stored in the open yard.)

3.1.3. Isocyanates: Isocyanates are hazardous due to their reactivity(EPA code no D003). If small quantities of isocyanates are generated (less than half a drum) they should be neutralized in accordance with the lab. Large quantities should be logged, marked and stored in the hazardous waste storage area until removed for incineration.

MN D-8
Waste Isocyanate

3.2. Finished Product: Finished products that are scrapped are hazardous wastes due to solvents present, (Curatives), and /or to their reactivity, (Prepolymers). When scrapped by 528/601, the pails/drums should be logged and marked. If proper curatives are present, the wastes should be immediately neutralized. Otherwise the wastes should be stored in the hazardous waste area until appropriate curatives/prepolymers are available.

SEE 2.4.

3.3. Waste Solvents: Waste solvents are hazardous wastes, once considered to be spent or non-reusable. As generated, the drums must be marked, logged and stored in the hazardous waste area

SEE APP. I.

4. Dept 504: No department operational log should be maintained by Dept 504; however, Dept 503's operational log should be used by 504 as full drums of equipment flush are generated.

4.1. Equip't Flush: As full drums of equipment flush are generated, the drums should be marked, logged, and stored in the hazardous waste storage area, until removed for incineration.

MN D-3
Equipment flush

ATTACHMENT 1

WASTE IDENTIFICATION		DOT CLASSIFICATION	DOT SHIPPING	DISPOSAL
WASTE	EPA ID NO.	WASTE	DESCRIPTION	PROCEDURE
Waste solvents	D-1	503	Waste solvent, nos, flammable liquid; NA1993	Incineration/ Alburn
Reactor flush (TSR)	D-2	503	Waste solvent, nos, flammable liquid; NA1993	Incineration/ Alburn
DLF Equip flush (Including EC-15)	D-3	502, 503, 504	Waste solvent, nos combustible; NA1993	Incineration/ Alburn
Solid resins-Waste	D-4	503	NONE	Landfill/ Irathane
Liquid resins-Waste	D-5	503	NONE	Unknown/ Irathane
Empty drums	D-6	501, 502, 503	NONE	Reclaimation/ Kotula, Worum
Solid urethane, Equipt flush	D-7	502, 528/601	NONE	Landfill/ Irathane
Prepolymers - Waste	D-8	502, 503, 528/601	Hazardous waste nos ORM-E, NA9189	Neutralization/ Landfill, Irathane Incineration/Albu
Curatives- Waste	D-9	502, 503, 528/601	Waste paint, solvent based, NA1993	Neutralization/ Landfill, Irathane Incineration/Albu
Rubber Scraps	D-10	501	NONE	Landfill/ Irathane
Floor Sweepings	D-11	502	NONE	Landfill/ Irathane
Used oil (Crank case)	D-12	501, 502, 522		Dust control/ISI Incineration/Albu
Mercury/Zinc chromate wastes	D-13	528/601	Waste mercury, nos UN2777 Poicon	Burial/ US Ecology